

### **Remarks**

This amendment is submitted in response to the Office Action dated August 9, 2005. Claims 1-14 have been amended. Accordingly, claims 1-14 are presented for reconsideration.

The Examiner has rejected applicant's claims 1-14 under 35 U.S.C. § 102(b) as being anticipated by the Choi, et al. patent (U.S. Patent No. 6,285,408). With respect to applicant's claims, as amended, the Examiner's rejection is respectfully traversed.

As an initial matter, the Choi, et al. patent is not prior art to the present application under 35 U.S.C. § 102(b) since the September 4, 2001 issue date of this patent is less than one year prior to the April 18, 2001 filing date of the present application. In fact, the Choi, et al. patent issued after the present application was filed. Accordingly, it is requested that the rejection of the claims under 35 U.S.C. § 102(b) be withdrawn. However, for purposes of the anticipated rejection of the claims as being anticipated by the Choi, et al. patent under 35 U.S.C. § 102(e), such a rejection is respectfully traversed for the reasons discussed below.

Applicant's independent claims 1 and 8 have been amended to more clearly define the present invention. Independent claim 1 is directed to an image processing apparatus comprising a reception unit adapted to receive at least three encoded image data, a decoding unit adapted to decode one of said encoded image data to generate a main frame, a sub frame generation unit adapted to generate sub frames using a low frequency component extracted from each one of the other encoded image data, and an image signal generation unit adapted to generate an image signal including said main frame and said sub frames. Independent claim 8 is directed to a corresponding image processing method.

Claims 1 and 8, as amended, specifically call for receiving at least three encoded image data, decoding one of those encoded image data to generate a main frame, and

generating multiple sub-frames using a low frequency component extracted from each of the other encoded image data. Referring to Figure 1 of the drawings of the present application, multiple images 14-1, 14-2 ... 14- N are supplied to sub-frame generating unit 16, and as described in the specification of the application, sub-frame generating unit 16 supplies one of the received images to track memory 20 (page 5, lines 9-14 of the application). The frame supplied to track memory 20 constitutes the “main frame.” Sub-frame generating unit 16 further generates multiple sub-frames by extracting the DC components of the digital image data supplied to it for each of the other images (page 5, lines 14-27). The multiple sub-frames generated are combined with the main frame (page 6, lines 2-31). Accordingly, Figure 2 represents the generated image signal that includes the main frame and the multiple sub-frames.

In the Office Action, the Examiner relies upon the Choi, et al. patent for allegedly disclosing “main frame generation means for decoding one of said plural image data to generate a main frame (Column 4 lines 7-34 allows for main frame generation for main frame generation for decoding plural image data).” The Examiner also relies upon the Choi, et al. patent for allegedly disclosing “sub frame generation means for extracting a low frequency component from one of said plural image data to generate a sub frame (Column 4 Lines 35-42 describes the sub frame generation wherein it is well know in the art to generate sub frames the lowest frequency component is extracted from the main frame. Therefore the sub frame generation meets the limitation).”

Applicant submits that the Choi, et al. patent does not disclose applicant’s sub-frame generation unit, as recited in claim 1, as well as applicant’s claimed step of generating sub-frames, as recited in claim 8. In particular, the Choi, et al. patent does not disclose generating

sub-frames from each of the “the other encoded image data” wherein “the other encoded image data” represents each of the “at least three encoded image data” received by the reception unit, except for the image data decoded to generate the main frame. In other words, the Choi, et al. patent does not disclose generating sub-frames from plural images. Rather, the Choi, et al. patent discloses providing only a “main frame” and a single “sub-frame” in a picture in picture function, as discussed in this patent in column 4, lines 35-43. In particular, the Choi, et al. patent recites that the device “may have a Picture in Picture (PIP) function to selectively display a HD class image and a SD class image in a main frame and in a sub-frame when a user selects a function requiring two images to be displayed on the HD monitor 107.” (column 4, lines 38-43). Thus, the Choi, et al. patent does not disclose applicant’s claimed feature of generating sub-frames from “each one of the other encoded image data,” as recited in independent claims 1 and 8.

It is further submitted that the Choi, et al. patent does not disclose applicant’s claimed feature that sub-frames are generated using a low frequency component extracted from each of the other encoded image data, as recited in claims 1 and 8. In the Office Action, the Examiner asserts that “it is well known in the art to generate sub-frames [sic] the lowest frequency component is extracted from the main frame.” Applicant disagrees. The Choi, et al. patent is silent as to how it generates the PIP signal and therefore fails to teach that a sub-frame is generated by extracting the low frequency component from the encoded image data. Moreover, the Choi, et al. patent discloses decoding each of the image frames prior to creation of a sub-frame within the VDP and analog copy protection unit 105, shown in Figure 1 of the patent. Applicant’s claims 1 and 8, however, recite that the multiple sub-frames are generated using a low frequency component extracted from each of the other encoded image data. Thus,

the Choi, et al. patent does not disclose the manner in which sub-frames are generated by the present invention.

Accordingly, applicant's amended independent claims 1 and 8, and claims 2-7 and 9-14 dependent thereon, in reciting "a sub-frame generation unit adapted to generate sub-frames using a low frequency component extracted from each one of the other encoded image data" (and similarly recited in claim 8) patentably distinguish over the Choi, et al. patent.

In view of the foregoing, applicant's claims 1-14 are not anticipated by the Choi, et al. patent. It is therefore requested that the rejection of claims 1-14 under 35 U.S.C. § 102(b) (or under 35 U.S.C. § 102(e)) be withdrawn.

Reconsideration of the claims is respectfully requested. If the Examiner believes that an interview would expedite consideration of this Amendment or of the Application, request is made that the Examiner telephone applicant's counsel at 212-790-9200.

Dated: December 8, 2005

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark Montague", with a stylized, flowing script.

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